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DRAFT
ENVIRONMENTAL
ASSESSMENT BCD
LAND & LIVESTOCK

DRAFT

ENVIRONMENTAL ASSESSMENT

**BCD LAND & LIVESTOCK GAME FARM
NEAR KALISPELL, MONTANA**

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DRAFT ENVIRONMENTAL ASSESSMENT BCD LAND & LIVESTOCK GAME FARM

SUMMARY

INTRODUCTION

The Montana Department of Fish, Wildlife and Parks (FWP) is required to perform an environmental analysis in accordance with the Montana Environmental Policy Act (MEPA) for "each proposal for projects, programs, legislation, and other major actions of state government significantly affecting the quality of the human environment" [Administrative Rules of Montana (ARM) 12.2.430]. The FWP prepares environmental assessments (EA) to determine whether a project will have a significant effect on the environment. If FWP determines that a project will have a significant impact that cannot be mitigated to a minor impact, the agency will prepare a more detailed environmental impact statement (EIS) before making a decision. If the agency determines that a proposed project will not have a significant impact, or that the impact can be mitigated to minor or none, the agency may make its licensing decision based upon results of the EA and criteria established under Montana game farm statute Montana Code Annotated (MCA) Title 87, Chapter 4, Part 4.

Mitigation measures may be considered in FWP's analysis as a means to reduce the impact(s) of a game farm to a level below significance. FWP may also recommend mitigation measures to reduce impacts that are considered minor.

OBJECTIVES

This EA has been prepared to serve the following purposes in accordance with FWP MEPA rules ARM 12.2.430:

- to ensure that FWP use natural and social sciences in planning and decision-making;
- to be used in conjunction with other agency planning and decision-making procedures to make a determination regarding the Proposed Action;
- to assist in the evaluation of reasonable alternatives and the development of conditions, stipulations, and modifications to the Proposed Action;
- to determine the need to prepare an Environmental Impact Statement (EIS) through an initial evaluation and determination of the significance of impacts associated with the Proposed Action;
- to ensure the fullest appropriate opportunity for public review and comment on the Proposed Action; and
- to examine and document effects of the Proposed Action on quality of the human environment.

PUBLIC PARTICIPATION

Public involvement in the EA process includes the steps necessary to identify and address public concerns. The Draft EA will be available for public review and comment from September 3, 1997 until 5pm September 24, 1997 from the Region 1 FWP office at the address listed below. Address all comments regarding this EA to the same address.

Dan Vincent, Regional Supervisor
Region 1 Fish, Wildlife and Parks
490 N. Meridian
Kalispell, Montana 59901
(406) 751-4579

PROPOSED ACTION AND ALTERNATIVES

PROPOSED ACTION

The FWP received an application in May 1997 to develop a new elk game farm referred to as the BCD Land & Livestock game farm, hereafter referred to in this EA as "BCD game farm". The proposed game farm is located approximately 7 miles northwest of Kalispell, Montana (**Figure 1**). The Proposed Action consists of a 38-acre elk game farm with separate quarantine and handling facilities located between two of the game farm enclosures (**Figure 2**).

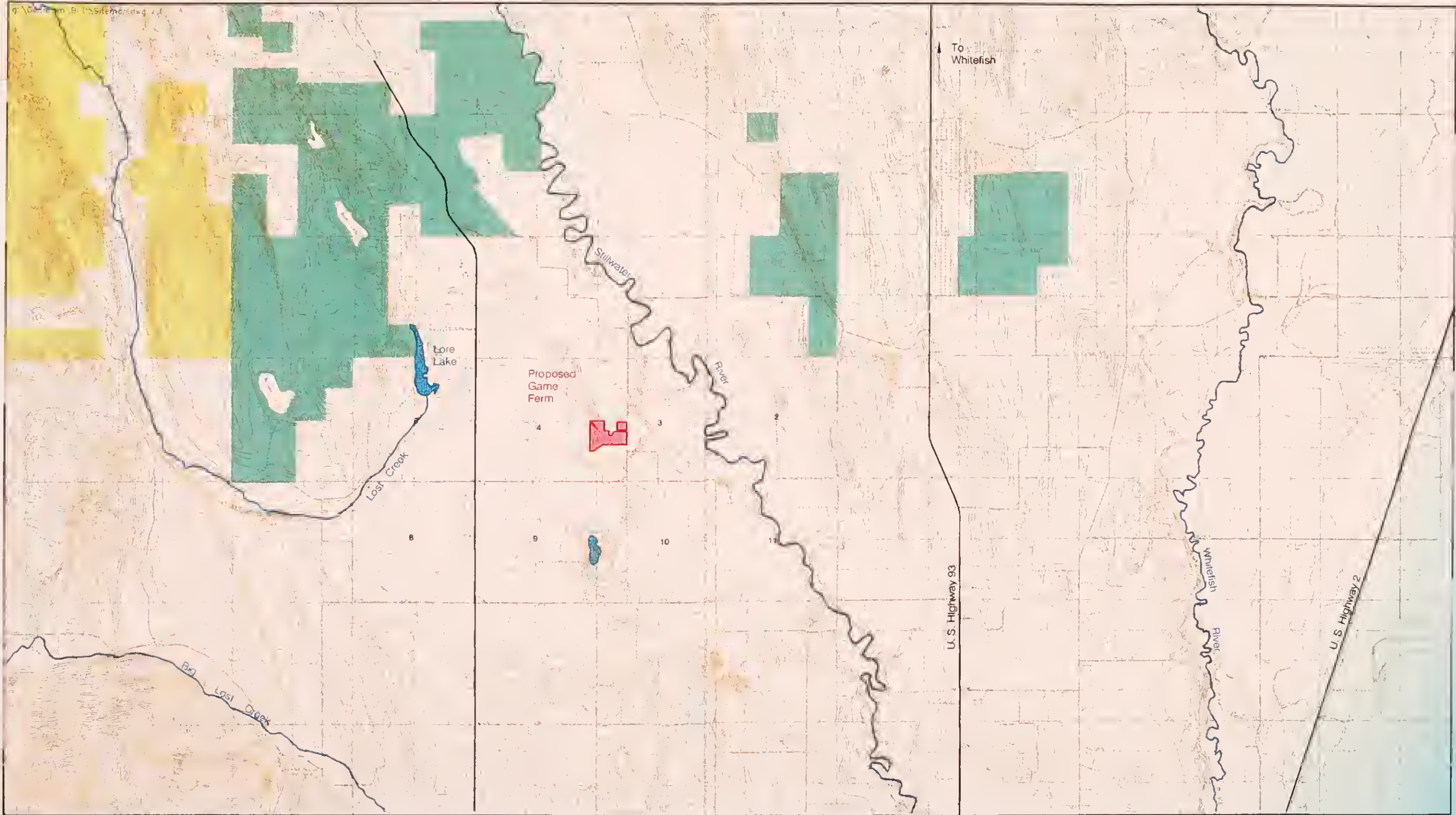
The Proposed Action would include placing an initial 20 elk in the game farm with the option of increasing the total to 200 elk in the 38-acre area. The applicant would breed, sell, and dispose of domestic elk in accordance with Montana game farm and disease control requirements stipulated in Montana statute and administrative rules. Fence construction would require a waiver from FWP because the design does not follow current rules in ARM 12.6.1503A (**Appendix A**); however, the proposed fence appears to meet waiver requirements.

ALTERNATIVES

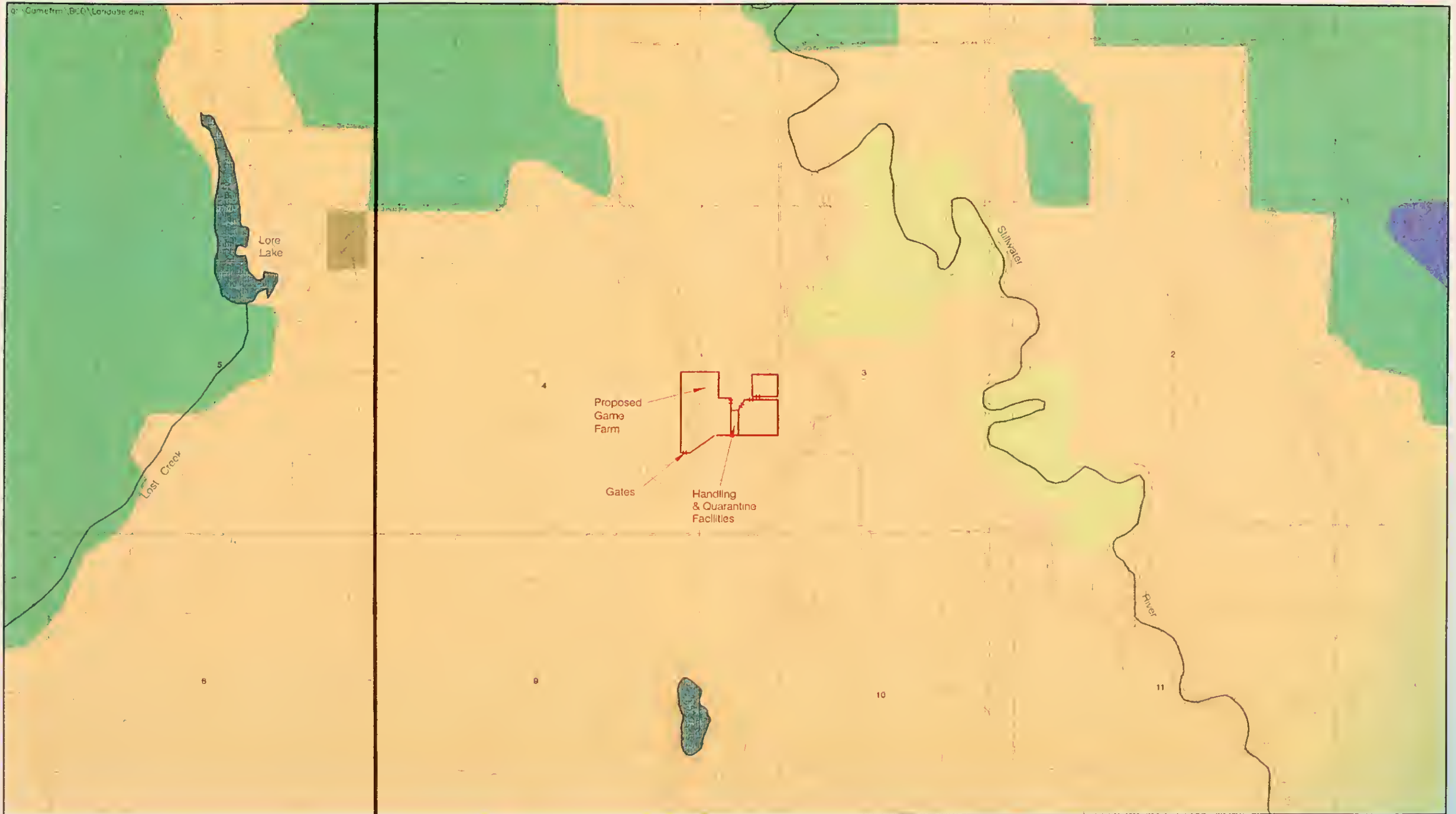
One alternative (No Action Alternative) is evaluated in this EA. Under the No Action Alternative, FWP would not issue a license for development of the BCD game farm as proposed. Therefore, no game farm animals would be placed on the proposed game farm site. Implementation of the No Action Alternative would not preclude other activities allowed under local, state and federal laws to take place in the proposed game farm area.

PURPOSE AND NEED OF THE PROPOSED ACTION

The purpose of the Proposed Action is to establish a new game farm site that would enclose domestic elk. The BCD game farm would be a commercial enterprise that provides elk for breeding stock to the game farm market, for meat production, and for antler production.



Site Map
 Proposed Game Farm EA
 BCD Land & Livestock
 Flathead County, Montana
 FIGURE 1



ROLE OF FWP AND DEPARTMENT OF LIVESTOCK

FWP is the lead agency in preparing this EA for the proposed project. This document is written in accordance with the Montana Environmental Quality Council (EQC) MEPA Handbook and FWP statutory requirements for preparing an EA under Title 75, Chapter 1, Part 2, Montana Code Annotated (MCA) and FWP rules under ARM 12.2.428 et seq. FWP is required to perform an environmental analysis for proposed projects in accordance with MEPA as stated in the *Introduction* section above.

Regulatory responsibilities for new and expanding game farms are shared with the Montana Department of Livestock (DoL). The DoL is responsible for regulating the health, transportation and identification of game farm animals. During the application process, all applications are submitted to the DoL for approval and inspection of the quarantine facility. No licenses are issued without such approval and inspection.

AFFECTED ENVIRONMENT

This section presents brief descriptions of the existing environment potentially affected by the proposed BCD game farm.

LAND RESOURCES

The proposed 38-acre BCD game farm site is located at an elevation of about 3,000 feet in the Stillwater River drainage between the towns of Kalispell and Whitefish. The river is located approximately 0.75 mile east and north of the proposed game farm enclosure. Approximately three-quarters of the proposed game farm site is situated on level bottomland; the remaining western one-quarter of the site is a moderately sloping hillside. General topography of the area is dominated by glacial features and subsequent alluvial features produced as the ice melted and retreated. The glacial features include the Lost Creek outwash fan, kettle holes, swales, and hummocky topography characteristic of ground moraine. Soils are primarily sand and silt loams with some clay.

Principal land use of the proposed game farm area and vicinity is livestock grazing and irrigated cropland. The proposed game farm operation is consistent with existing land uses and is surrounded by private farm land.

WATER RESOURCES

The Stillwater River, located about three-quarters mile east and north of the game farm site, is the prominent hydrologic feature in the study area. A former channel of the river located about one-quarter mile east of the game farm site contains water year-round from springs and seeps in the general area. A spring/seep area and associated pond are located between two of the proposed game farm pastures; water from this pond drains to the former river channel and the Stillwater River. No wetland/riparian areas are located within the proposed game farm enclosures. Stock water would be supplied to the domestic elk from an existing well located near the game farm site.

VEGETATION

The 38 acres within the proposed BCD game farm has been seeded to introduced pasture grasses and forbs. Existing fields are presently hand-line irrigated and grazed. Fields have not been farmed in over 10 years, and Canada thistle infests portions of the fields. The spring/seep area near the northeast corner of the proposed west pasture and the existing pond supports wetland vegetation species.

FISH AND WILDLIFE

The proposed game farm area is located near white-tailed deer winter range (**Figure 3**); the game farm site is not considered important winter range. The Kuhns Wildlife Management Area located ½-mile to the northwest and the Stillwater River located about three-quarters-mile to the north and east are important deer winter range. The general area of agricultural land surrounding the game farm site is used by white-tailed deer during other seasons as well. Elk winter range is located approximately 1½ miles northwest of the proposed game farm. This elk winter range includes the Kuhns Wildlife Management Area along the Stillwater River. Mule deer also use the western portion of this winter range. Mountain lions and black bear are reported to occur on the winter range area, but wolves and grizzly bears are not reported to use this area. Bald eagles winter along the Stillwater River.

ENVIRONMENTAL CONSEQUENCES

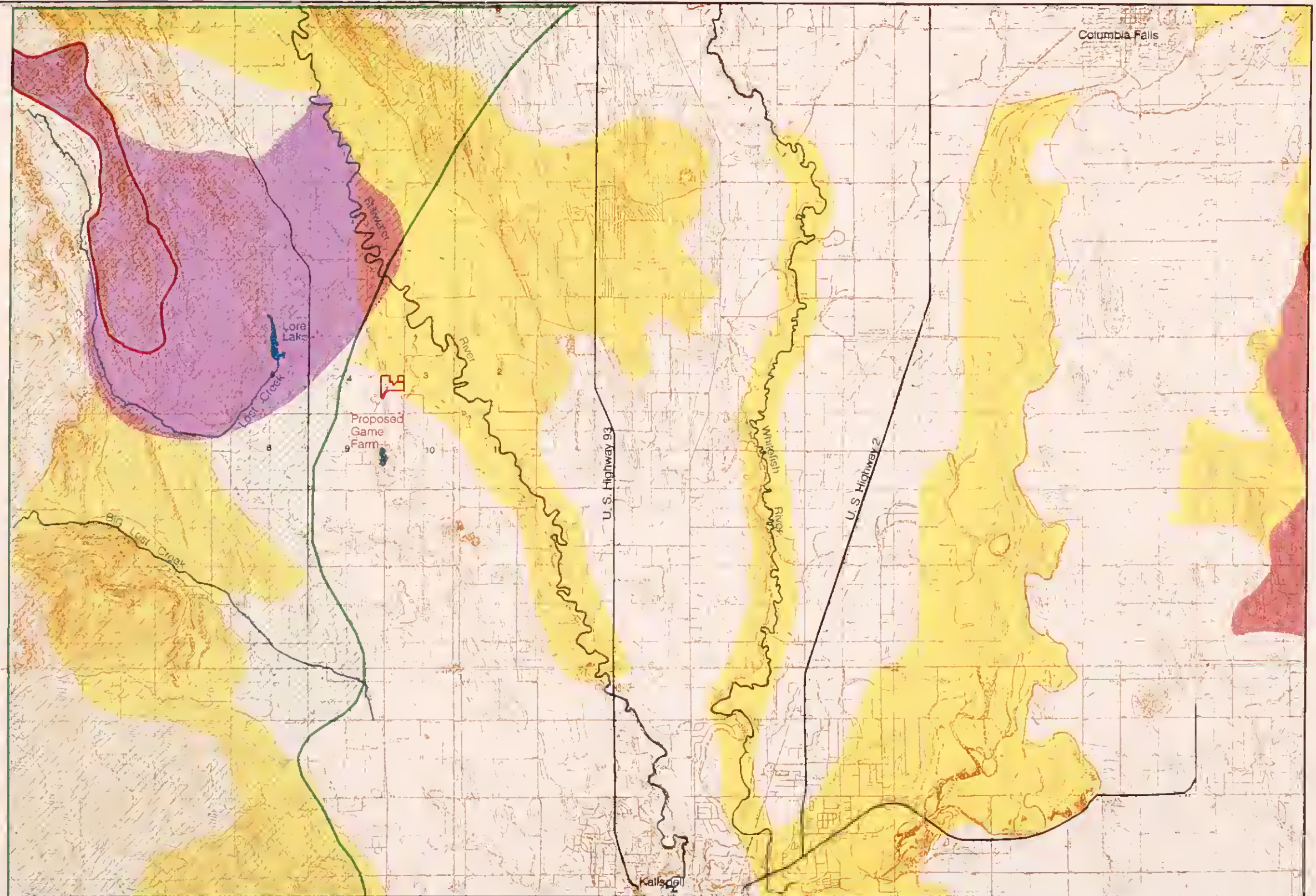
Only resources that have potential adverse effects from the Proposed Action are summarized in this section. A detailed discussion of environmental consequences is contained in *Part II* of this EA.

LAND RESOURCES

Environmental impacts to land and soil resources associated with raising 20 to 200 elk on 38 acres are directly related to the stocking rate. Most of the property is on gentle to level slopes where wind erodibility is more of a concern than water erosion. Water erosion could occur on the hillside in the western portion of the proposed game farm. Magnitude of erosion will be greatest on disturbed areas where vegetative cover is significantly reduced due to excessive grazing by domestic elk. Areas of saturated soil near springs/seeps and during snowmelt and heavy rainstorms present a risk of soil compaction.

WATER RESOURCES

Nutrient-enriched water from elk fecal matter, and sediment from elk traffic erosion may enter surface water features in the area during major precipitation events and snowmelt. Ponds located along the drainage to the Stillwater River would significantly reduce sediment from entering the river. Shallow groundwater in portions of the valley bottom also could be affected by the nutrient-enriched water. Most private wells in the sparsely populated surrounding areas are greater than 200 feet deep. Potential hydrologic impacts from the proposed BCD game farm are considered minor and should not adversely affect water quality for fishes or other uses.



0 Feet 7000

- Moose Winter Range and Overall Distribution
- Mule Deer Winter Range and Overall Distribution
- Elk Winter Range and Overall Distribution
- White-Tail Deer Winter Range

Note: Wildlife Data Presented On This Map Was Derived From Information Services Unit, Montana Fish, Wildlife, and Parks Digitized At A Scale Of 1:250,000. Source Date Is 1995

VEGETATION

The intensity of grazing up to 200 elk on 38 acres utilizing three pastures will change the vegetative composition due to continuous utilization, soil compaction, and soil and vegetative disturbance during high moisture conditions. Even with irrigation and fertilization, plant vigor likely would decrease under a year-round grazing regime, resulting over time in decreasing forage availability, reduced ground cover, increased soil erosion, and invasion of noxious weeds. Vegetative condition would be dependent on stocking rate in the pastures.

FISH AND WILDLIFE

The Proposed Action would not result in a significant loss of habitat for big game species or block movement patterns of big game animals because of the limited size of the enclosures. The 38-acre enclosure may alter local movement of some individual wild deer or transitory elk. In addition, the area is already intensively grazed by cattle and offers little habitat value for big game animals. Wild deer could enter the game farm during periods of drifted or otherwise deep snow accumulations. No impacts to aquatic systems in the area are expected because any surface water that leaves the site enters a small drainage with a series of ponds prior to entering the Stillwater River.

Spread of contagious wildlife disease from game farm animals may reduce the number of wild deer and elk available for hunting. Hunters also could be exposed to diseases that are contagious to humans.

CUMULATIVE EFFECTS

Because no plans for major housing developments, new road building, or other projects have been submitted for this portion of the Stillwater River valley, no cumulative effects are expected from past, present, or reasonably foreseeable activities near the proposed game farm.

EA CONCLUSION

MEPA and the game farm statutes require FWP to conduct an environmental analysis for game farm licensing as described in the *Introduction* section of this EA. FWP prepares EAs to determine whether a project would have a significant effect on the environment. If FWP determines that a project would have a significant impact that could not be mitigated to a level that is less than significant, the FWP would prepare a more detailed EIS before making a decision.

Based on the criteria evaluated in this EA, an EIS will not be required for the proposed BCD game farm. The appropriate level of analysis for the Proposed Action is a mitigated EA because all impacts of the proposed game farm construction and operation have been accurately identified in the EA, and all identified significant impacts would be mitigated to minor or none.

MITIGATION MEASURES

Mitigation measures described in this section address both minor and significant impacts. FWP will require stipulations to mitigate all potentially significant impacts from the Proposed Action. Potential minor impacts from the proposed game farm are addressed as mitigation measures that are strongly recommended to remain in compliance with state and federal environmental regulations, but not required.

Required Stipulations

The following stipulation is designed to mitigate significant impacts identified in the EA to below the level of significance:

Report ingress of any wild game animals and predators (i.e., bear, lion, and coyote) or egress of domestic elk immediately to FWP. The report must contain the probable reason why or how ingress/egress occurred.

This stipulation is imposed to mitigate potentially significant risk to wildlife health posed by the proposed game farm. Risk to wildlife health from contact between game farm animals and wild game is potentially significant due to the following factors:

- the site would be located in an area currently utilized by wild game;
- fencing would cross hilly terrain, increasing the risk of wild deer jumping the fence; and
- corrosion of steel fence posts and frost-heaving in this area can compromise fence integrity.

Information required by the stipulation in the event of ingress or egress will help both the applicant and FWP to address ingress/egress and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife to below significant.

Recommended Mitigation Measures

The following mitigation measures address minor impacts identified in the EA that are likely to result from the Proposed Action.

Land Resources

Minimize increases in erosion and runoff from disturbed ground by:

- using coated steel or treated wood fence posts, and sulfate resistant concrete, if needed, due to corrosive soil conditions; and
- maintaining a "reasonable stocking rate" within the game farm enclosure, defined as "the density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt".

Water Resources

The Montana Department of Environmental Quality (DEQ) administers and enforces water quality laws (e.g., Clean Water Act and Montana Water Quality Act) relating to pollution from point and nonpoint sources. Facilities that qualify as "concentrated animal feeding operations" (CAFO) are considered point sources of pollution and may require permits under Title 75, Chapter 5, Part 6, MCA, and ARM 17.30.1330 (also see 40 CFR § 122.23 and Appendix B to Part 122). Facilities that allow game farm animals access

to surface water or that contaminate runoff to surface or groundwater may be considered nonpoint sources of pollution and are subject to the prohibitions against pollution and nondegradation of state water (Title 75, Chapter 5, Parts 3 & 6, MCA, and ARM 17.30.701 et seq.). The following management practices are recommended to minimize the risk of discharging pollutants to state water:

- Minimize stock traffic in saturated soil areas during the spring when groundwater and surface water are highest. Maintain a reasonable stocking rate for elk in the proposed game farm area to mitigate some of the potential erosion and sedimentation impacts as described above under *Land Resources*. Other water quality impacts could be minimized by moving dead animals and excess fecal material to an approved site that is more isolated from surface water and groundwater.
- Control surface water runoff discharges to the nearby pond by employing best management practices (BMPs) along the fence line where surface water runoff could directly enter the pond and associated drainage. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences.

Vegetation

Effects on vegetation from the Proposed Action can be mitigated by using the following mitigation measures:

- Utilize a reasonable stocking rate that would maintain adequate vegetative cover to maintain and/or stabilize soil;
- Exclude all of the spring/seep area in the northeast corner of the west pasture from the proposed game farm enclosure;
- Establish a rest-rotation grazing system within the 38-acre game farm area as elk numbers increase to optimize vegetative productivity and minimize soil and vegetative degradation;
- Feed only certified weed-seed-free hay or pellets and develop a weed control plan in conjunction with the Flathead County Weed Control District; and
- Maintain vegetative productivity by farming portions of the pastures over time.

Fish and Wildlife

The following standard game farm management practices would help to minimize impacts to fish and wildlife:

- Store hay, feed, and salt away from exterior fences or enclose in appropriate containers or buildings.
- Feed game farm animals at interior portions of the enclosure and not along the perimeter fence.

- Remove dead animals, excess fecal material, and waste feed from the game farm and deposit at an approved site not likely to be used by humans, domestic animals, and wild animals. Alternatively, dead animals could be buried (minimum depth of 2 feet) and fecal matter could be composted on site in areas away from surface water.
- Inspect the exterior game farm fence on a regular basis and immediately after events likely to damage the fence to ensure its integrity with respect to trees, frost-heaving, corrosion, burrowing animals, predators, and other game animals.
- If fence integrity or ingress/egress becomes a problem, adjust fence as necessary, including double fencing, increasing post support, replacing damaged posts, or raising fence height.
- During winters of exceptional snow cover, remove snow on either side of the enclosure fence to prevent ingress/egress.
- Risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, and management of manure in accordance with DEQ (1996) guidance (Guide to Animal Waste Management and Water Quality Protection in Montana).

Cultural and Historical Resources

Conduct a cultural resource inventory in the proposed game farm area. If archeological artifacts are observed during construction or operation activities at the game farm, work should stop and the discovery reported to:

Montana Historical Society
 Historic Preservation Office
 1410 8th Avenue; P.O. Box 201202
 Helena, Montana 59620
 (406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs, and preserve the artifact(s).

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ENVIRONMENTAL ASSESSMENT CHECKLIST

PART I. GAME FARM LICENSE APPLICATION

Montana Department of Fish, Wildlife & Parks' (FWP) authority to regulate game farms is contained in sections 87-4-406 through 87-4-424, Montana Code Annotated (MCA) and Administrative Rules of Montana (ARM) 12.6.1501 through 12.6.1519.

1. Name of Project: BCD Land & Livestock Elk Game Farm

Application Date: May 23, 1997

2. Name, Address and Phone Number of Applicant(s):

Brian Tutvedt
1145 Church Drive
Kalispell, MT 59901

(406) 755-1959

Craig Tutvedt
2686 W. Valley Dr.
Kalispell, MT 59901

(406) 755-5653

David Tutvedt
1141 Church Drive
Kalispell, MT 59901

(406) 257-4645

3. If Applicable:

Estimated Construction/Commencement Date: August 1, 1997

Estimated Completion Date: within 16 months of license approval

Is this an application for expansion of existing facility or is a future expansion contemplated?

This is an application for a new facility.

4. Location Affected by Proposed Action (county, range and township):

Flathead County
Southwest ¼ of Section 03, Township 29 North, Range 22 West
Southeast ¼ of Section 04, Township 29 North, Range 22 West

5. Project Size: Estimate the number of acres that would be directly affected that are currently:

- | | |
|--|---|
| <p>(a) Developed:</p> <p> residential..... ____ acres</p> <p> industrial..... ____ acres</p> <p>(b) Open Space/Woodlands.... ____ acres</p> <p>(c) Wetlands/Riparian Areas..... ____ acres</p> | <p>(d) Floodplain... ____ acres</p> <p>(e) Productive:</p> <p> irrigated cropland. <u>38</u> acres</p> <p> dry cropland..... ____ acres</p> <p> forestry..... ____ acres</p> <p> rangeland meadow... ____ acres</p> |
|--|---|

6. Map/site plan: The following maps are included in this Environmental Assessment:

- | | |
|-----------|---------------------|
| Figure 1: | Site Map |
| Figure 2: | Land Use/Land Cover |
| Figure 3: | Winter Range |

7. Narrative Summary of Proposed Action or Project including the Benefits and Purpose of Proposed Action:

The Proposed Action consists of developing a new 38-acre elk game farm in Flathead County, Montana. The proposed game farm would be located approximately 7 miles northwest of Kalispell in the Stillwater River drainage. The game farm application was received by the Montana Department of Fish, Wildlife, and Parks (FWP) from the three Tutvedts (1997) on May 23, 1997.

The proposed perimeter fence would consist of 8-foot high, high-tensile big game fixed-knot fencing. The fence would be supported by 3-inch diameter steel pipe posts driven approximately 3.5 feet into the soil and spaced at 20-foot intervals. Fence mesh would consist of 6-inch vertical wire stays and 17 horizontal wires (approximately 6-inch square mesh size). Double-latching metal gates with a single lock would be used for access to the three separate pastures at five locations (**Figure 2**). A fence construction waiver must be granted by FWP because the design does not comply with current rules in ARM 12.6.1503A. As proposed, the fence appears to meet waiver requirements.

Separate quarantine and handling facilities would be located between two of the game farm pasture areas (**Figure 2**). The fence type for these facilities has not yet been determined. Detailed quarantine facility plans for the proposed BCD game farm were not available for review from DoL at the time of this writing.

The proposed game farm would initially stock 20 elk with the option to manage up to 200 elk. The applicant would breed, sell and dispose of game farm elk in accordance with Montana game farm and disease control requirements stipulated in Title 87, Chapter 4, Part 4, MCA and Title 81, Chapter 2, Part 7, MCA.

The proposed game farm property is leased to BCD Land & Livestock from Paul Tutvedt and Doug Wendt. Paul Tutvedt has lived on the property for many years and currently lives adjacent to the proposed game farm. The applicants have been involved with cattle ranching and agriculture for many years on the property. The purpose of the game farm is to breed and sell game farm elk. Game farm elk from the BCD game farm would be produced to supply market demand for breeding animals, antlers, and meat production.

8. Listing of any other Local, State or Federal agency that has overlapping or additional jurisdiction:

(a) Permits:

<u>Agency Name</u>	<u>Permit</u>	<u>Approval Date and Number</u>
Montana Department of Livestock	approve quarantine and handling facility	Pending

(b) Funding:

<u>Agency Name</u>	<u>Funding Amount</u>
None	

(c) Other Overlapping or Additional Jurisdictional Responsibilities:

<u>Agency Name</u>	<u>Type of Responsibility</u>
Montana Department of Livestock (DoL)	disease control
Montana Department of Environmental Quality (DEQ)	water quality
Montana State Historical Preservation Office (SHPO)	cultural resources
Montana Department of Natural Resources and Conservation (DNRC)	water rights
Flathead County Conservation District	perennial stream disturbance/crossing
Flathead Regional Development Office	conditional use permit
U.S. Army Corps of Engineers (COE)	direct disturbance of stream & wetlands

9. List of Agencies Consulted During Preparation of the EA:

Montana Department of Livestock
Montana Bureau of Mines and Geology (MBMG)
Montana Department of Environmental Quality
Montana State Historical Preservation Office
Montana Department of Natural Resources and Conservation
Flathead Regional Development Office

References:

Tutvedt, Brian, Craig, and David, 1997. Game Farm Application A for the BCD Land & Livestock Game Farm Project. Submitted to Montana Dept. of Fish, Wildlife and Parks. May 22, 1997.

PART II. ENVIRONMENTAL REVIEW

This section of the EA presents results of an environmental review of the Proposed Action. The assessment evaluated direct and indirect impacts and cumulative effects of the Proposed Action on the following resources of the physical environment: land, air, water, vegetation, fish and wildlife; and the following concerns of the human environment: noise, land use, human health risk, community impacts, public services and taxes, aesthetics and recreation, and cultural and historical resources. Impacts were determined to fall in one of four categories: unknown, none, minor and significant. For purposes of this EA, and in accordance with ARM 12.2.429 through 12.2.431, these terms are defined as follows:

Cumulative Effects: The collective impacts on the human environment of the Proposed action when considered in conjunction with other past and present actions related to the Proposed Action by location or generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through pre-impact statement studies, separate impacts statement evaluation, or permit processing procedures.

Unknown Impacts: Information is not available to facilitate a reasonable prediction of potential impacts.

Significant Impacts: A determination of significance of an impact in this EA is based on individual and cumulative impacts from the Proposed Action. If the Proposed Action results in significant impacts that can not be effectively mitigated, FWP must prepare an Environmental Impact Statement (EIS). The following criteria are considered in determining the significance of each impact on quality of the physical and human environment:

- severity, duration, geographic extent and frequency of occurrence of the impact;
- probability that the impact will occur if the Proposed Action occurs;
- growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative effects;
- quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources or values;
- importance to the state and to society of each environmental resource or value that would be affected;
- any precedent that would be set as a result of an impact of the Proposed Action that would commit FWP to future actions with significant impacts or a decision in principle about such future actions; and
- potential conflict with local, state, or federal laws, requirements, or formal plans.

Reasonable Stocking Rate: The density of animals appropriate to maintain vegetative cover in pasture condition that minimizes soil erosion from major precipitation events and snowmelt.

Evaluation of impacts from the Proposed Action, including secondary and cumulative impacts, on the physical and human environment are described in the following check-list.

PHYSICAL ENVIRONMENT

1. LAND RESOURCES Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Soil instability or changes in geologic substructure?						
b. Disruption, displacement, erosion, compaction, moisture loss, or over-covering of soil which would reduce productivity or fertility?					Yes	1(b)
c. Destruction, covering or modification of any unique geologic or physical features?						
d. Changes in siltation, deposition or erosion patterns that may modify the channel of a river or stream or the bed or shore of a lake?						

AFFECTED ENVIRONMENT:

The proposed BCD game farm is located approximately 7 miles northwest of Kalispell, Montana in Flathead County. The 38-acre game farm site is at an elevation of about 3,000 feet above mean sea level. Approximately 0.75 mile to the north and east lies the Stillwater River, a major tributary to the Flathead River. A former channel of the river is situated just to the east of the proposed game farm area on the floodplain of the Stillwater River. This former river channel collects spring and seep water from the Lost Creek outwash fan, a fan-shaped deposit originating from the mouth of Lost Creek canyon, approximately 2 miles to the west. Both the Flathead National Forest and a unit of the Stillwater State Forest are located in the mountains about 2 to 3 miles west of the proposed game farm area. Current land use of the proposed game farm site is cattle grazing, surrounded by irrigated crop land.

General topography of the area surrounding the proposed game farm is dominated by glacial features resulting from the late Wisconsin Cordilleran ice sheet which covered the land surfaces of northwest Montana to an elevation of 5,100 feet (Johns, 1970), and subsequent alluvial features produced as the ice melted and retreated. Glaciofluvial features include the Lost Creek outwash fan, kettle holes, swales, and the hummocky topography characteristic of ground moraine. Three-quarters of the 38 acre game farm area is situated on level ground on a bench above the Stillwater River floodway. The western quarter of the property lies on slopes of the glaciofluvial fan, which is composed of a mixture of glacial till and fluvially deposited sand.

Soil units on the eastern portion of the property are composed of the Half Moon and Radnor Series and an association of the Tally, Blanchard, and Flathead soils (USDA, 1960). The western quarter of the proposed game farm site lies on slopes of 12 to 20 percent with soils classified as the Yeoman gravelly loam.

Half Moon soils are deep, very-fine sandy loams and silt loams on slopes of 0 to 3 percent which occupy broad nearly level terraces and form in calcareous, light-colored, thinly-stratified silt and fine-sand deposited by glacial streams (USDA, 1960). In the Flathead Valley, these soils are commonly used for small grain and hay production. Clay content in Half Moon soils ranges from 15 to 35 percent and,

among other characteristics, are moderately permeable, and very slightly to highly erodible by wind (USDA, unpublished data). There is a high risk of corrosion to uncoated steel and concrete in these soils (USDA, unpublished data).

Radnor soils have silt loam textures and form in drainage channels, depressions, swales, and low areas on shallow slopes. They are poorly drained with a muck or peat-like surface layer and contain 18 to 35 percent clay. The water table is generally within 2 to 3 feet of the surface where these soils form and the soils tend to pond during the spring and summer for long periods (USDA, 1960); however, according to the landowners, ponding seldom occurs on the property (B. Tutvedt, pers. comm., 1997). Wind erodibility is very slight and the risk of corrosion to uncoated steel is moderate (USDA, unpublished data).

Tally, Blanchard, and Flathead soils occur in irregular patterns on hummocky surfaces, but are generally fine-sandy loams and loamy sand. Permeability is moderately rapid and these soils may be excessively drained. Tally, Blanchard, and Flathead soils have high risk of corrosion to uncoated steel and are highly erodible by wind (USDA, unpublished data).

Yeoman soils have developed largely on glacial tills and are medium textured, well-drained, and moderately permeable with 18 to 27 percent clay and 25 to 35 percent coarse fragments. A coarse sand is found in the subsurface at varying depths, which makes the soil somewhat droughty due to low moisture holding capacity in the subsurface horizon. Yeoman soils have a high risk of corrosion to uncoated steel and a moderate risk of corrosion to concrete (USDA, unpublished data).

PROPOSED ACTION:

- 1(b) Environmental impacts to land and soil resources associated with the Proposed Action of raising 20 to 200 elk on the 38 acre site are directly related to the stocking rate. The western portion of the proposed game farm contains moderately steep slopes where the soil, while somewhat resistant to erosion due to the higher clay content and presence of a considerable amount of gravel, will erode if an adequate vegetative cover is not maintained. Most of the property is on more gentle to level slopes where wind erodibility is more of a concern than water erodibility on disturbed areas and areas where vegetative cover is significantly reduced due to excessive grazing. Maintaining an adequate vegetative cover is integral to reducing potential impacts to soil productivity from erosion. Where Radnor soils are present in the NW $\frac{1}{4}$ NW $\frac{1}{4}$ SW $\frac{1}{4}$ of Section 3, the poorly drained characteristics of the soil present a risk of compaction if stocking rates are not managed during periods of ponding or excessive wetness.

NO ACTION:

The No Action alternative would likely not affect the current condition of the property if the owners of the property continue current land use practices. Depending on future land use in lieu of using the area for a game farm, livestock grazing or farming could have similar impacts to the soil resource as the Proposed Action.

CUMULATIVE EFFECTS:

As this area is used intensively for agricultural production, the cumulative effect of using the proposed area as a game farm is expected to be slight. The proposed permit area does not contain any unique or significant soil or land resources that would be lost due to the proposed land use exchange.

COMMENTS:

There is a moderate to high risk of corrosion to uncoated steel and concrete in many of the soil units located with the proposed game farm area. This characteristic should be considered when designing the fence.

Required Stipulations: None.

Recommended Mitigation Measures:

Use coated steel or treated wood for fence posts. If concrete is used to set fence posts, sulfate resistant concrete is recommended.

Maintain a reasonable stocking rate within the game farm enclosures to minimize changes in soil structure and potential increases in runoff and water and wind erosion from disturbed ground. Special care should be taken to minimize traffic in saturated soil areas during the spring and early summer when groundwater and surface water levels are highest. A "reasonable stocking rate" is defined on the first page of *Part II - Environmental Review*.

REFERENCES:

Johns, Willis M., 1970. Geology and Mineral Deposits of Lincoln and Flathead Counties, Montana. Montana Bureau of Mines and Geology, Butte, Montana. Bulletin 79. 182 pages with maps.

U.S. Department of Agriculture (USDA), Soil Conservation Service (SCS), 1960. Soil Survey of the Upper Flathead Valley Area, Montana. USDA SCS in cooperation with Montana Agriculture Experiment Station. USDA Washington, D.C. Series 1946 No. 4, 67 pages with plates.

USDA, Natural Resources Conservation Service (NRCS). Unpublished Soil Survey Data provided by Gregory Snell, Soil Scientist Specialist, Kalispell, Montana field office. July 28, 1997.

PHYSICAL ENVIRONMENT

2. <u>AIR RESOURCES</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Emission of air pollutants or deterioration of ambient air quality?					Yes	2(a)
b. Creation of objectionable odors?					Yes	2(b)
c. Alteration of air movement, moisture, or temperature patterns or any change in climate, either locally or regionally?						
d. Adverse effects on vegetation, including crops, due to increased emissions of pollutants?						

AFFECTED ENVIRONMENT:

The proposed game farm site is located along a dirt road in area used intensively for agricultural production and livestock grazing. This area is sparsely populated with no apparent air quality problems. This area is not classified for air quality attainment status (C. Homer, pers. comm., 1997).

PROPOSED ACTION:

- 2(a) Impacts to air quality from fence construction and road use may result in short-term minor increases in particulate matter in ambient air.
- 2(b) Odor problems may result from waste management practices in areas where elk concentrate to feed. However, there few residences within a 1-mile radius of the BCD game farm; these residences also are in the farming business. Therefore, odor problems should be minor to nonexistent.

NO ACTION:

No impacts to air quality are expected to result from the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Dust and odor are not expected to be of concern at the proposed game farm site due to the distance to the nearest residences and sparse population in this area. If dust and/or odor problems arise, mitigation measures can be implemented.

Required Stipulations: None.

Recommended Mitigation Measures:

Dust management activities include spraying water on unpaved roads during the dry season, vegetating exposed ground where possible, protecting fill piles from wind erosion, and limiting ground disturbance to only the area necessary to complete the job.

Employ the following best management practices (BMPs) to reduce odor problems if they occur: (1) incorporate waste into soil quickly by plowing or discing; (2) spread waste during cool weather or in the morning during warm, dry weather; and (3) cover buried animal carcasses on the game farm with a minimum of 2 feet of soil and at a distance greater than 1-mile from any residence; carcasses may also be sent to a licensed municipal landfill if approved by the landfill operator; carcasses should not be disposed of in or adjacent to water bodies, roads, and ditches. These and other BMPs are described in "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ 1996).

REFERENCES:

Homer, Charles, 1997. Personal communication with Mr. Charles Homer, Air Quality Bureau, Montana Department of Environmental Quality. August 1997.

Montana Department of Environmental Quality (DEQ), 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

PHYSICAL ENVIRONMENT

3. <u>WATER RESOURCES</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Discharge into surface water or any alteration of surface water quality including but not limited to temperature, dissolved oxygen or turbidity?					Yes	3(a)
b. Changes in drainage patterns or the rate and amount of surface runoff?					Yes	3(a)
c. Alteration of the course or magnitude of flood water or other flows?						
d. Changes in the amount of surface water in any water body or creation of a new water body?						
e. Exposure of people or property to water related hazards such as flooding?						
f. Changes in the quality of groundwater?					Yes	3(f)
g. Changes in the quantity of groundwater?						
h. Increase in risk of contamination of surface or groundwater?					Yes	3(f)
i. Violation of the Montana non-degradation statute?						
j. Effects on any existing water right or reservation?						
k. Effects on other water users as a result of any alteration in surface or groundwater quality?						
l. Effects on other water users as a result of any alteration in surface or groundwater quantity?						

AFFECTED ENVIRONMENT:

Most of the 38-acre proposed game farm area is located on relatively flat sprinkler irrigated pasture/grassland. Approximately one-fourth of the proposed game farm site is on an east-facing hillside. The Stillwater River is located approximately three-quarters of a mile east and north of the game farm site (**Figure 4**). A former channel of the river is located about ¼-mile east of the game farm area; this channel contains water year-round from springs and seeps in the general area. A spring/seep area and associated pond are located between two of the proposed game farm pastures; water from this pond drains to the former river channel and the Stillwater River. A new seep area developed this spring in the eastern portion of the proposed west pasture; water from this seep area drains to the pond discussed above. According to Brian Tutvedt (pers. comm., 1997), this is the first year in memory that the new seep developed, due primarily to high snowpack in the winter. No wetland/riparian areas are located within the proposed game farm enclosures. Stock water would be supplied to the domestic elk from an existing well and hydrants located near the proposed enclosures.

PROPOSED ACTION:

- 3(a) Increased runoff and erosion from greater soil disturbance would occur from the domestic elk, especially when stock numbers are high. Runoff from the 38-acre area, primarily on the western hillside slope, could reach the Stillwater River during major precipitation events; however, the ponds located along the drainage to the river would significantly reduce sediment levels. Due to the ponds and relatively small area considered for the Proposed Action, any impacts that would occur due to increased erosion and runoff are considered to be minor.

According to the DEQ (1997), a density of 200 animals on 38 acres will, in time, reduce the vegetative cover to the point where conditions would meet the definition of an "animal feeding operation" (ARM 17.30.1304(3)). If water containment structures on the project site do not have the capacity for the 25-year, 24-hour storm, a CAFO permit must be obtained to permit the discharge. The 25-year, 24-hour storm in the project area is 2.8 inches.

- 3(f) Domestic elk fecal matter and nutrient-enriched water could affect the quality of groundwater and surface water in the vicinity of the game farm, primarily during periods of snowmelt and major precipitation events. The proposed enclosure would not include the pond and most of the spring/seep area that drains to the pond; therefore, impacts to riparian/wetland areas are not expected to occur.

Several wells are reported to exist within 1 mile of the proposed BCD game farm from Montana DNRC and MBMG records. Most wells are greater than 200 feet in depth, with water levels ranging from less than 10 feet to nearly 200 feet deep. Groundwater is expected to flow eastward from the proposed game farm site toward the Stillwater River. One private well is listed in the records that is located east of the game farm site -- Robert Harvey is the owner; the well is located ¼-mile east of game farm site, is 142 feet deep, and the static water level is 6 feet deep (DNRC 1997). The shallow water table in at least portions of the proposed game farm area would allow groundwater to be susceptible to quality impacts from the elk fecal matter (e.g., elevated nutrient levels).

NO ACTION:

Current hydrologic conditions are not expected to change under the No Action Alternative.

CUMULATIVE EFFECTS:

No plans for major housing development or new road-building have been submitted for the cumulative effects study area. Therefore, no cumulative effects from past, present, or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

The DEQ administers and enforces water quality laws (e.g., Clean Water Act and Montana Water Quality Act) relating to pollution from point and nonpoint sources. Facilities that qualify as "concentrated animal feeding operations" (CAFO) are considered point sources of pollution and may require permits under Title 75, Chapter 5, Part 6, MCA, and ARM 17.30.1330 (also see 40 CFR § 122.23 and Appendix B to Part 122). Facilities that allow game farm animals access to surface water or that contaminate runoff to surface or groundwater may be considered nonpoint sources of pollution and are subject to the prohibitions against pollution and nondegradation of state water (Title 75, Chapter 5, Parts 3 & 6, MCA,

and ARM 17.30.701 et seq.). Nonpoint sources of pollution are considered "nonsignificant" sources of degradation where reasonable land, soil, and water conservation practices are applied and existing and anticipated beneficial uses will be fully protected (ARM 17.30.716). Facilities that cause "significant" changes in water quality must apply to DEQ for authorization to degrade and undergo a nondegradation review to evaluate the nature of the discharge in relation to the quality of the receiving water.

Due to potential minor impacts identified above from increased erosion, sedimentation, and elk fecal matter, several mitigation measures are recommended. Other water quality protection practices may be required by DEQ if it is determined that a CAFO permit is necessary. Refer to "Guide to Animal Waste Management and Water Quality Protection in Montana" (DEQ 1996) and "Common Sense and Water Quality, A Handbook for Livestock Producers" (Montana Department of Health and Environmental Sciences, 1994) for further information on mitigation measures and CAFO permits. The following management practices are recommended to minimize the risk of discharging pollutants to state water:

Required Stipulations: None.

Recommended Mitigation Measures:

Minimize stock traffic in saturated soil areas during the spring when groundwater and surface water levels are highest.

Control surface water runoff discharges to the nearby pond by employing best management practices (BMPs) along the fence line where surface water could directly enter the pond. The BMPs may include earth berms, straw bale dikes, vegetative buffer zones, and/or silt fences.

Maintain a reasonable stocking rate in the proposed game farm area to mitigate potential impacts from erosion and fecal matter. Potential water quality impacts also could be minimized by moving dead animals and excess fecal material away from the spring/seep areas and burying the animals and composting the fecal matter. A "reasonable stocking rate" is defined on the first page of *Part II - Environmental Review*.

REFERENCES:

Montana Bureau of Mines and Geology (MBMG), 1997. Computer file search of well logs. Butte MBMG office. July 1997.

Montana Department of Environmental Quality (DEQ), 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

_____, 1997. Letter from Timothy Byron (DEQ) to Ms. Karen Zackheim (FWP) dated August 21, 1997.

Montana Department of Health and Environmental Sciences (DHES), 1994. Common Sense and Water Quality, A Handbook for Livestock Producers. Water Quality Division. Helena, MT.

Montana Department of Natural Resources and Conservation (DNRC), 1997. Computer file search of water rights. Helena DNRC field office. July 1997.

Tutvedt, Brian, 1997. Personal communication with Brian Tutvedt, one of the applicants for the BCD game farm. July 1997.

PHYSICAL ENVIRONMENT

4. <u>VEGETATION</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Changes in the diversity, productivity or abundance of plant species?					Yes	4(a)
b. Alteration of a plant community?					Yes	4(b)
c. Adverse effects on any unique, rare, threatened, or endangered species?						4(c)
d. Reduction in acreage or productivity of any agricultural land?					Yes	4(d)
e. Establishment or spread of noxious weeds?					Yes	4(e)

AFFECTED ENVIRONMENT:

The 38 acres within the proposed BCD game farm has been seeded to introduced pasture grasses and forbs, including timothy, orchardgrass, smooth brome, Kentucky bluegrass, and white Dutch clover. Also present are Canada thistle, musk thistle, bull thistle, salsify, and black medic. Steeper and/or drier areas in the west pasture supported populations of Sandburg's bluegrass, an introduced species of yarrow (*Achillea nobilis*), northern wormwood, and a single ponderosa pine. The corral areas supported populations of lambsquarters, giant burdock, bladder campion, pineapple weed, and pepperweed species.

Existing fields are presently hand-line irrigated and grazed. When not used for grazing, fields provide three cuttings of hay, for a total production of 4 to 5 tons/acre on 31 acres. The additional 7 acres produces approximately 1.5 tons per acre (B. Tutvedt, pers. comm., 1997). Fields have not been farmed in over 10 years, and Canada thistle infests portions of the fields. Production of hayfields declines over time; there are no plans to replant existing fields at this time.

Presently, the proposed game farm produces enough hay to support 200 elk for 3.8 months. As production of the fields declines over time, the carrying capacity will decrease as well.

The northeast corner of the west pasture has a spring/seep area which enlarged in the spring of 1997. Existing vegetation in that corner of the pasture includes common monkeyflower, redtop, mint and other wet site species. A new seep area that developed to the south in 1997 is vegetated by existing hayfield species, and has none of the wet site species present. The older spring area is clearly defined by wetland species, and is proposed to be fenced out of the game farm. The new seep area thus far shows no presence of wetland species and likely developed in response to the exceptionally high precipitation in the first half of 1997. As a result, this seep area may cease flowing when precipitation returns to normal levels.

One Montana State listed Category 1 noxious weed (Canada thistle, *Cirsium arvense*) is known to occur within the study area. Category 1 weeds are currently established and generally widespread. Management criteria include containment and suppression of existing infestations and prevention of new infestations (Montana Department of Agriculture, 1995). Canada thistle is present throughout the proposed game farm in intermittent patches. Stinger is used to control Canada thistle when planting a

hayfield, but controlling Canada thistle once a field is established is difficult (B. Tutvedt, pers. comm., 1997).

Common toadflax (*Linaria vulgaris*) is locally abundant but not present on the proposed game farm site. While not a state listed weed, it is invasive, and treated locally with Roundup or 2-4D. Musk thistle, bull thistle, and common tansy are present in low density on the proposed game farm. Musk thistle is well infested with the seed-eating weevil *Rhinocyllus conicus*, which may help decrease musk thistle plant density (Story, J. 1992).

PROPOSED ACTION:

4(a), 4(b), 4(d)

The Proposed Action would graze up to 200 elk on 38 acres utilizing three existing pastures. This intensity of grazing will change the vegetative composition of the pastures due to continuous utilization, soil compaction, and soil and vegetation disturbance during high moisture conditions in spring and fall. Depending on elk waste handling, high nitrogen levels could impact vegetation adversely. Plant vigor will decrease more rapidly under a year-round grazing regime, resulting over time in decreasing forage availability, reduced ground cover, increased soil erosion and invasion of noxious weeds.

4(c) Based on field reconnaissance, grazing and haying history of the tract, and Montana Natural Heritage Program (MNHP) information, no sensitive plant species are present within the proposed game farm (MNHP 1997).

4(e) At the present time, control of Canada thistle on the proposed game farm is maintained by mowing (B. Tutvedt, pers. comm., 1997). Increased soil disturbance could result in the spread of Canada thistle and other weedy species, and the invasion of noxious weeds present in the vicinity including spotted knapweed (*Centaurea maculosa*), tansy ragwort (*Senecio jacobaea*), and leafy spurge (*Euphorbia esula*).

NO ACTION:

The No Action Alternative would result in no change to existing vegetation in and around the proposed game farm.

CUMULATIVE EFFECTS:

The severity, duration, geographic extent, and frequency of occurrence of impacts from this particular game farm are negligible. However, when looking at game farms and development as a whole, the cumulative effects of past, present and reasonably foreseeable activities in the vicinity of the proposed game farm, and in western Montana generally will, over time, change the complexion of the natural community.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

Mitigation measures recommended for the Proposed Action include: exclude all of the spring/seep area in the northeast corner of the west pasture from the proposed game farm; establish a rest/rotation grazing system within the proposed game farm; stock elk at a rate which will preserve the vegetative resource and soil integrity over time; maintain vegetative productivity by farming portions of the pastures over time; feed only certified weed-seed-free hay; and develop a weed control plan in conjunction with the Flathead County Weed Control District.

REFERENCES:

Montana Department of Agriculture (MDOA), 1995. County Noxious Weed Control Act, Title 7, Chapter 22, MCA 1995. ARM 4.5.202.

Montana Natural Heritage Program (MNHP), 1997. Letter of July 17, 1997. Montana Natural Heritage Program, Helena, MT.

Story, J., 1992. Biological Control of Weeds: Selective, Economical and Safe. Western Wildlands, Summer 1992. pp 18-23.

Tutvedt, B., 1997. Game Farm Applicant, BCD Land and Livestock, Kalispell, MT. Personal communication. July 29, 1997.

PHYSICAL ENVIRONMENT

5. <u>FISH AND WILDLIFE</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Deterioration of critical fish or wildlife habitat?					Yes	5(a)
b. Changes in the diversity or abundance of game species?					Yes	5(b)
c. Changes in the diversity or abundance of nongame species?						
d. Introduction of new species into an area?						
e. Creation of a barrier to the migration or movement of animals?					Yes	5(e)
f. Adverse effects on any unique, rare, threatened, or endangered species?					Yes	5(f)
g. Increase in conditions that stress wildlife populations or limit abundance (including harassment, legal or illegal harvest or other human activity)?						
h. Increased risk of contact between game farm animals and wild game?						
i. Increased risk to wildlife health from disease?					Yes	5(i)

AFFECTED ENVIRONMENT:

The proposed BCD game farm is located on agricultural lands in the Stillwater River valley in northwestern Montana. Deciduous and coniferous forests occur in the general area (**Figure 2**) but the proposed game farm is isolated from these forested areas by agricultural lands. The proposed game farm site has been previously used to grow hay and to pasture cattle. Native vegetation within this area has essentially been replaced with introduced plants. The bottomland area along the Stillwater River contains some cottonwood trees and willows, and supports some of the more common neotropical migrant birds and may be used by raptors for nesting.

The proposed game farm is located near white-tailed deer winter range (**Figure 3**); the game farm is not considered important winter range (T. Thier, pers. comm., 1997). The Kuhns Wildlife Management Area located ½-mile to the northwest, and the Stillwater River located about three-quarters-mile to the north and east, are important deer winter range. The general area of agricultural land surrounding the game farm site is used by white-tailed deer during other seasons as well. Elk winter range is located approximately 1 ½ miles northwest of the proposed game farm. This elk winter range includes the Kuhns Wildlife Management Area along the Stillwater River, and a forested ridge that is primarily under state ownership. Mule deer also use the western portion of this winter range (about 5 miles northwest of the proposed game farm). Mountain lions and black bear are reported to occur on the winter range area, but wolves and grizzly bears are not reported to use this area. Bald eagles (a Federally listed threatened species) winter along the Stillwater River, but no eagle nests are known in the vicinity of the proposed

game farm (T. Thier pers. comm., 1997). The area does not represent important habitat for any other Federally listed threatened or endangered species although peregrine falcons could be migratory through this area.

PROPOSED ACTION:

- 5(a) The Proposed Action consists of placing up to 200 domestic elk on approximately 38 acres of land. The area enclosed by the proposed game farm consists primarily of irrigated pasture land, most of which has already been planted to non-native grasses. A few white-tailed deer use this area, and elk also may on occasion move through the area. However, the Proposed Action would not result in a significant loss of habitat for big game species or block movement patterns of big game animals because of the limited size of the enclosure. In addition, the area is already intensively grazed by cattle and offers little habitat value for big game animals.

Nutrient-enriched runoff water (effluence) during snow melt and major storm events is expected to occur at this site due to the heavy stocking rate of domestic elk. This water would flow into a drainage leading to the Stillwater River. Water from the game farm area is impounded in a series of small ponds before entering the Stillwater River. Water quality in the Stillwater River would not be changed measurably because of the large volume of water flowing in the river in relation to runoff from the proposed game farm site, and much of the sediments and nutrients would be removed while passing through the series of ponds. There would be no expected impacts to aquatic systems in this area resulting from the proposed game farm operation. A large number of cattle are already grazed in this area and effluence from raising domestic would replace that currently originating from cattle.

- 5(b) Mountain lions and black bears occasionally pass through this area and may be attracted to the game farm due to the concentration of domestic elk (lions) and availability of livestock feeds (bears). Lions and bears are capable of entering the enclosure and, although live capture and removal is possible, it is not without risks. This may affect individuals but not populations. There is a possibility that wild deer may enter the enclosure especially during periods of drifted snow or deep snow accumulation in the winter. Wild ungulates exposed to domestic elk would likely be destroyed rather than released back to the wild. This may affect individuals but not populations.
- 5(e) The 38-acre enclosure may alter local movement of some individual wild deer or transitory elk, forcing them to reroute their daily movement around the exterior enclosure fence. Deer and transitory elk approaching the enclosure would not likely be adversely influenced because of the limited size of the enclosure.
- 5(f) Bald eagles use the Stillwater River drainage during the winter, but no known nest sites occur in the vicinity of the proposed game farm. Operation of the proposed game farm is not expected to impact bald eagle use of this area during the winter. No other Federally-listed threatened or endangered species are known to inhabit the proposed game farm or adjacent areas. The peregrine falcon may cross this area during periods of migration, but the proposed game farm will not influence this species.
- 5(i) There is an undetermined potential of domestic elk carrying or becoming infected with a contagious wildlife disease or parasite such as tuberculosis, chronic wasting disease, or meningeal worm, and then coming in contact (through the fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. Release of contagious disease in the wild

could severely impact native wildlife populations. It is also possible that diseases and parasites carried by wild elk could be introduced to domestic elk with equally severe impacts. Ingress of wild elk or deer would likely result in the destruction of the trespassing animals. This analysis assumes that all domestic elk entering the enclosure have been genetically screened or otherwise certified that they do not carry red deer genes.

NO ACTION:

No wildlife related impacts are expected to occur under the No Action Alternative. Hay production and livestock grazing of this area would be expected to continue under the No Action Alternative.

CUMULATIVE EFFECTS:

The fencing of 38 acres of already modified grassland would not represent cumulative impacts to wildlife in this area.

COMMENTS:

One stipulation is required to reduce potential significant impacts from ingress/egress. Other mitigation measures are recommended to minimize potential impacts to fish and wildlife species.

Required Stipulations:

Report ingress of any wild game animals and predators (i.e., bear, lion, and coyote) or egress of domestic elk immediately to the Montana FWP. The report must contain the probable reason why or how ingress/egress occurred.

The above stipulation is imposed to mitigate potentially significant risk to wildlife health posed by the proposed game farm. Risk to wildlife health from contact between game farm animals and wild game is potentially significant due to the following factors:

- the site would be located in an area currently utilized by wild game;
- fencing would cross hilly terrain, increasing the risk of wild deer jumping the fence; and
- corrosion of metal posts is likely to occur (see *Land Resources* section in *Part II* in this EA).

Information required by the stipulation in the event of ingress or egress will help both the applicant and FWP to address ingress/egress and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife to below significant.

Recommended Mitigation Measures:

1. Store hay, feed, and salt away from exterior fences or enclose in buildings.
2. Feed game farm animals at interior portions of the enclosure and not along the perimeter fence.

3. Remove dead animals, excess fecal material, and waste feed from the game farm and deposit at an approved site not likely to be used by humans, domestic animals, and wild animals. Alternatively, dead animals could be buried (minimum depth of 2 feet) and fecal material could be composted on site in areas away from surface water.
4. Inspect exterior game farm fence on a regular basis and immediately after events likely to damage fence to ensure its integrity with respect to trees, frost-heaving, corrosion, burrowing animals, predators, and other game animals.
5. If fence integrity or ingress/egress becomes a problem, adjust the fence as necessary, including double fencing, increased post support, replacing damaged posts, or increased fence height.
6. During winters of exceptional snow cover, remove snow on either side of the perimeter fence to prevent ingress/egress.
7. Risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, and management of manure in accordance with DEQ (1996) guidance.

REFERENCES:

Montana Department of Environmental Quality (DEQ), 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

Thier, Tim, 1997. Personal communication with Tim Thier, wildlife biologist with Montana Department of Fish, Wildlife and Parks. August 1997.

HUMAN ENVIRONMENT

6. NOISE EFFECTS Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Increases in existing noise levels?					Yes	6(a)
b. Exposure of people to severe or nuisance noise levels?						

AFFECTED ENVIRONMENT:

Little noise occurs in the general game farm area because of the sparse population and lack of other activities in this area that would generate noise.

PROPOSED ACTION:

6(a) The Proposed Action would result in a minor short-term increase in existing noise levels from fence construction and other activities conducted to develop the game farm. The nearest residence to the proposed game farm is located approximately one-quarter mile to the east.

NO ACTION:

No impacts to existing noise levels are expected from the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Due to the distance to the nearest residence and overall sparse population in the area, noise generated from the game farm operation should not cause a problem. If noise concerns are raised, mitigation measures can be employed.

Required Stipulations: None.

Recommended Mitigation Measures:

Impacts to neighbors from construction noise can be reduced by limiting noisy activities to daylight hours and completing construction as soon as possible.

HUMAN ENVIRONMENT

7. LAND USE Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Alteration of or interference with the productivity or profitability of the existing land use of an area?					Yes	7(a)
b. Conflict with a designated natural area or area of unusual scientific or educational importance?						
c. Conflict with any existing land use whose presence would constrain or potentially prohibit the Proposed Action?						
d. Conflict with any existing land use that would be adversely affected by the Proposed Action?						
e. Adverse effects on or relocation of residences?						

AFFECTED ENVIRONMENT:

Principal land use of the proposed game farm area and vicinity is crop land and pasture for livestock (Figure 2). The sparsely populated area is in the West Valley Zoning District (N. Wilson, pers. comm., 1997) and is utilized by some wild game.

PROPOSED ACTION:

7(a) The proposed game farm would be consistent with existing land uses. It could potentially be developed for residential use; however, this area has a 5- to 20-acre density requirement (N. Wilson, pers. comm., 1997). The use of the proposed game farm area for elk may increase the value of the land.

NO ACTION:

If the proposed game farm area is not developed, use of the site would likely continue for cattle pasture.

CUMULATIVE EFFECTS:

Land use described in the Proposed Action is consistent with existing land use in the vicinity of the proposed game farm area. Because no proposals or applications for future development in the vicinity of the proposed game farm are currently on file with Flathead County (N. Wilson, pers. comm., 1997), and no past or present activities have adversely affected the game farm area, no potential cumulative effects on land use from the Proposed Action and past, present and reasonably foreseeable actions to land use are anticipated.

COMMENTS:

Because impacts to land use are none to potentially positive, no mitigation measures are recommended.

REFERENCES:

Wilson, Narda, 1997. Personal communication with Ms. Narda Wilson, Flathead Regional Development Office, Kalispell, MT. August 1997.

HUMAN ENVIRONMENT

8. <u>RISK/HEALTH HAZARDS</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Risk of dispersal of hazardous substances (including, but not limited to chemicals, pathogens, or radiation) in the event of an accident or other forms of disruption?					Yes	8(a)
b. Creation of any hazard or potential hazard to domestic livestock?						
c. Creation of any hazard or potential hazard to human health?						

PROPOSED ACTION:

- 8(a) Spread of a contagious wildlife disease from game farm animals may directly or indirectly (depending upon nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting, or expose hunters to diseases that are contagious to humans as well. See the *Fish and Wildlife* section for additional information.

NO ACTION:

No impacts or risks would occur from health hazards under the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present or reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

The seven standard game farm mitigation measures recommended in the Fish and Wildlife section are applicable to this section. In addition, risk of disease epidemic or heavy parasite infections among domestic elk can be minimized by maintaining a reasonable domestic elk stocking rate in relation to the enclosure size, and management of manure in accordance with DEQ (1996) guidance. Failure to certify that elk entering the enclosure are free of red deer genes would make any egress incident considerably more significant.

REFERENCES:

Montana Department of Environmental Quality (DEQ), 1996. Guide to Animal Waste Management and Water Quality Protection in Montana. Helena, MT.

HUMAN ENVIRONMENT

9. <u>COMMUNITY IMPACT</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Alteration of the location, distribution, density, or growth rate of the human population of an area?						
b. Alteration of the social structure of a community?						
c. Alteration of the level or distribution of employment or community or personal income?						
d. Changes in industrial or commercial activity?						
e. Changes in historic or traditional recreational use of an area?						
f. Changes in existing public benefits provided by affected wildlife populations and wildlife habitats (educational, cultural or historic)?						
g. Increased traffic hazards or effects on existing transportation facilities or patterns of movement of people and goods?						

AFFECTED ENVIRONMENT:

The nearest town to the proposed game farm site is Kalispell, located approximately 7 miles to the southeast. In addition, the game farm site is located within an intensive agriculture area.

PROPOSED ACTION:

As a result of the distance to the nearest community, no adverse impacts to the community are expected from the proposed game farm. No employees would be hired as a result of the Proposed Action. While the Proposed Action may increase the income level for the applicant and increase taxes paid to the county, these increases would be relatively minor with respect to the community.

NO ACTION:

No adverse impacts to the community would result from the No Action Alternative.

CUMULATIVE EFFECTS:

No adverse impacts to the community are expected to result from the Proposed Action and past, present and reasonably foreseeable activities in the vicinity of the proposed game farm.

COMMENTS:

No mitigation measures are recommended with respect to community impacts.

HUMAN ENVIRONMENT

10. PUBLIC SERVICES & TAXES Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. A need for new or altered government services (specifically an increased regulatory role for FWP and Dept. of Livestock)?						10(a)
b. A change in the local or state tax base and revenues?						10(b)
c. A need for new facilities or substantial alterations of any of the following utilities: electric power, natural gas, other fuel supply or distribution systems, or communications?						

PROPOSED ACTION:

- 10(a) FWP and DoL would be required to have an increased work load associated with the game farm for fence and animal inspections and monitoring. For this relatively small game farm operation, however, the increased work load is expected to be minor.
- 10(b) Placement of elk would increase the annual tax contribution of the proposed game farm, with collected taxes going toward the county general fund and local school district. For 20 elk, annual taxes would total approximately \$150 to \$500, depending on the number, age and sex of the elk.

NO ACTION:

No additional taxes would be collected from the applicant under the No Action Alternative. The applicant may continue to lease pasture for cattle grazing in the proposed game farm area.

CUMULATIVE EFFECTS:

No adverse cumulative effects to public services, taxes, and utilities are anticipated to result from the Proposed Action and past, present and reasonably foreseeable activities in the vicinity of the proposed game farm.

COMMENTS:

No mitigation measures are recommended with respect to public services, taxes, and utilities.

HUMAN ENVIRONMENT

11. AESTHETICS/RECREATION Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Alteration of any scenic vista or creation of an aesthetically offensive site or effect that is open to public view?						
b. Alteration of the aesthetic character of a community or neighborhood?						
c. Alteration of the quality or quantity of recreational/tourism opportunities and settings?						

AFFECTED ENVIRONMENT:

The game farm site is located in an area intensively used for agricultural production. There are no public recreation areas that are directly accessed via the game farm area. State of Montana and U.S. Forest Service land is located approximately 2 to 3 miles to the west of the game farm site. Kuhns Wildlife Management Area is located about ½ mile to the north.

PROPOSED ACTION:

No adverse impacts to the public view, character of the neighborhood, or recreational opportunities in the area would result from the Proposed Action.

NO ACTION:

No adverse impacts to aesthetics or recreational opportunities in the area would result from the No Action Alternative.

CUMULATIVE EFFECTS:

No additional impacts from past, present and reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

No mitigation measures are recommended with respect to aesthetics and recreation.

HUMAN ENVIRONMENT

12. <u>CULTURAL & HISTORICAL RESOURCES</u> Would Proposed Action result in:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Destruction or alteration of any site, structure or object of prehistoric, historic, or paleontological importance?					Yes	12(a)
b. Physical change that would affect unique cultural values?						
c. Effects on existing religious or sacred uses of a site or area?						

AFFECTED ENVIRONMENT:

A file search was conducted by the State Historic Preservation Office (SHPO) for the proposed project area (Sections 3 & 4, T29N, R22W). Results of this search show that there are no previously recorded historic or archaeological sites within the project area (SHPO 1997). The absence of cultural properties in the area does not mean that they do not exist, but rather may reflect the absence of any previous cultural resource inventory in the area.

PROPOSED ACTION:

12(a) According to SHPO (1997), based on the lack of previous inventory in the area and the site's low topography, there is a high likelihood of unknown or unrecorded cultural properties to be in the area.

NO ACTION:

No impacts to unknown cultural resources are expected from the No Action Alternative unless other disturbances occur within the property.

CUMULATIVE EFFECTS:

No additional impacts from past, present and reasonably foreseeable activities near the proposed game farm are anticipated.

COMMENTS:

Required Stipulations: None.

Recommended Mitigation Measures:

Conduct a cultural resource inventory in the proposed game farm area. If archeological artifacts are observed during construction of the game farm fence or from other activities, work should stop in the area and the discovery reported to:

Montana Historical Society
Historic Preservation Office
1410 8th Avenue; P.O. Box 201202
Helena, Montana 59620
(406) 444-7715

If work stoppage in the area containing observed artifacts is not possible, record the location and position of each object, take photographs, and preserve the artifact(s).

REFERENCES:

Montana State Historic Preservation Office (SHPO), 1997. Letter from Phillip Melton (SHPO) to Doug Rogness (Maxim Technologies, Inc.) dated August 14, 1997.

SUMMARY

Would the Proposed Action, considered as a whole:	Potential Impact				Can Impact be Mitigated	Comment Index
	Unknown	None	Minor	Significant		
a. Have impacts that are individually limited, but cumulatively considerable? (A project or program may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)					Yes	13(a)
b. Involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?					Yes	13(b)
c. Potentially conflict with the substantive requirements or any local, state, or federal law, regulation, standard or formal plan?						
d. Establish a precedent or likelihood that future actions with significant environmental impacts would be proposed?						13(d)
e. Generate substantial debate or controversy about the nature of the impacts that would be created?					Yes	13(e)

PROPOSED ACTION:

13(a) Year-long use of the enclosure by up to 200 elk probably would result in more nutrient-enriched runoff into the Stillwater River than the existing conditions of cattle grazing. A significant number of cattle already graze in this portion of the Stillwater River drainage. The addition of this runoff water quality from the proposed game farm probably would be minor when compared to impacts already occurring to this drainage system by domestic cattle.

13(b) There is an undetermined potential of domestic elk carrying or becoming infected with a contagious wildlife disease or parasite such as tuberculosis, chronic wasting disease, or meningeal worm and then coming in contact (through-the-fence, nose-to-nose, nose-to-soil, or ingress/egress) with wild deer, elk, or other wildlife. Release of a contagious disease in the wild could severely impact native wildlife populations. It is also possible that disease and parasites carried by wild elk could be introduced to domestic elk with equally severe impacts. Ingress of wild elk or deer would likely result in the destruction of the trespassing animals.

Spread of a contagious wildlife disease may directly or indirectly (depending on the nature of the disease) affect the human environment by reducing the number of wild deer and elk available for hunting, or exposing hunters to diseases that are contagious to humans as well.

13(d) Because effective game farm management is a function of scale, any future expansion applications could result in increasingly significant environmental impacts.

13(e) The nature of impacts to wildlife from elk game farms is currently under debate in Montana and other states. The following issues are of the greatest concern:

- Disease transmission from game farm elk to wildlife is possible if the game farm elk are diseased and have an opportunity to come into contact with wild elk or deer.
- Hybridization of Montana's game species resulting from the ingress/egress of animals on game farms.
- Potential for wild animals to ingress into the game farm. Ingressing elk and deer are generally killed, typically by FWP wardens, to prevent potential disease transmittal. Ingressing mountain lions and black bears may be immobilized and removed.
- Theft of wild animals for financial gain on game farms.

These issues are particularly controversial when game farms block migration routes or consume significant areas of land historically utilized by wild game. Inadequate perimeter fencing and fence monitoring on the part of the game farm operator can also lead to ingress and egress events and nose-to-nose contact between wild game and game farm animals. Because the proposed BCD game farm area is not within any big game migration routes or would not consume a significant portion of land utilized by wild game, and because the proposed perimeter fence is determined to be adequate for the size, location and type of game farm, the controversial nature of the Proposed Action is minor.

SUMMARY EVALUATION OF SIGNIFICANCE CRITERIA

- a. **Does the Proposed Action have impacts that are individually minor, but cumulatively considerable? (A project may result in impacts on two or more separate resources which create a significant effect when considered together or in total.)**

No. However, year-long use of the enclosure by up to 200 elk probably would result in more nutrient-enriched runoff into the Stillwater River during periods of snow melt and significant precipitation events. The Stillwater River already receives effluence from irrigation return water, runoff from croplands, and from wintering and feedlot cattle. The addition of effluence from the proposed game farm probably will be immeasurable. In addition, this effluence would not be greater than if the game farm area was used to pasture and winter domestic cattle or sheep.

- b. **Does the Proposed Action involve potential risks or adverse effects which are uncertain but extremely hazardous if they were to occur?**

Yes. An unlikely, but extremely hazardous event should it occur, would be the spread of a disease or parasite from domestic elk to wild elk or deer. The risk of this event occurring can be reduced by following the mitigation measures listed in Sections 5 and 8 (*Fish/Wildlife* and *Risk/Health Hazards*, respectively).

- c. **Description and analysis of reasonable alternatives (including the No Action Alternative) to the Proposed Action whenever alternatives are reasonably available and prudent to consider and a discussion of how the alternatives would be implemented:**

No Action Alternative: The No Action Alternative would avoid all potential impacts listed above. This site would likely be used for hay production, or grazed by domestic cattle or sheep should the No Action Alternative be selected. The No Action Alternative probably would not result in exclusion of wildlife from this site.

- d. **Evaluation and listing of mitigation, stipulation, or other control measures enforceable by the agency or another government agency:**

This section provides an analysis of impacts to private property by proposed restrictions or stipulations in this EA as required under 75-1-201, MCA, and the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The analysis provided in this EA is conducted in accordance with implementation guidance issued by the Montana Legislative Services Division (EQC 1996). A completed checklist designed to assist state agencies in identifying and evaluating proposed agency actions, such as imposed stipulations, that may result in the taking or damaging of private property, is included in **Appendix B**. Mitigation measures described in this section address both minor and significant impacts. FWP will require stipulations to mitigate all potentially significant impacts from the Proposed Action. Potential minor impacts from the Proposed Action are addressed as mitigation measures that are strongly recommended, but not required.

Required Stipulations

Report the ingress of any wild game animals and predators (i.e., bear, lion, and coyote) or egress of domestic elk immediately to FWP. The report must contain the probable reason why or how ingress/egress occurred.

Restriction on Private Property Use

This stipulation restricts the use of private property by effectively requiring that the proposed game farm be monitored at least once every 24 hours for ingress or egress events. The stipulation is consonant with the current FWP requirement to report egress events immediately [ARM 12.6.1517(2)].

Alternatives

Report ingress and egress events to FWP within a time period greater than 24 hours.

This stipulation would not adequately address the significant risk to wildlife health. Ingressing wild animals must be detected immediately to prevent contact with wild game after contact with game farm animals.

Benefits from Imposing the Stipulation

This stipulation is imposed to mitigate potentially significant risk to wildlife health posed by the proposed game farm. Risk to wildlife health from contact between game farm animals and wild game is potentially significant due to the following factors:

- the site would be located in an area currently utilized by wild game;
- fencing would cross hilly terrain, increasing the risk of wild deer jumping the fence; and
- corrosion of steel fence posts and frost-heaving in this area can compromise fence integrity.

Information provided by the stipulation would help the applicant and FWP to address ingress and egress incidents and to minimize contact between wild and domestic animals. This stipulation, in addition to existing FWP fencing and wildlife protection requirements, would effectively reduce the risk to wildlife health to below significant.

Types of Expenditures the Stipulation Would Require

The stipulation to require immediate notice of ingress and egress events would not impose any additional expenditures beyond those necessary to immediately report egress events in accordance with ARM 12.6.1517(2).

Stipulation's Effect on Property Values

None.

PART III. NARRATIVE EVALUATION AND COMMENT

Wildlife use of the area and potential for through-the-fence contact with game farm animals (consider year-around use, traditional seasonal habitat use, and location of travel routes and migration corridors).

Through-the-fence contact: The proposed game farm is located in moderate density white-tailed deer habitat, and wild elk on occasion may pass through this area and they might be attracted to the game farm by domestic elk. Nose-to-nose contact is most likely to occur between wild and domestic elk, and unlikely to occur between domestic elk and wild deer. In addition, transitory wild elk may be attracted to domestic elk during the rut. Transmission of disease or parasites may occur during nose-to-nose contact, nose-to-body contact, and by contacting vegetation and feces along the fence line. Disease transmission may occur from wild ungulates to domestic elk and from domestic elk to wild ungulates. Risk of disease transmission can be reduced by maintaining the integrity of the enclosure fence, by maintaining a healthy domestic elk population, and by following the previously-listed mitigation measures. If the game farm is managed properly, risk of disease transmission from domestic elk to wild ungulates would likely be minimal.

Potential for escape of game farm animals or ingress of wildlife (consider site-specific factors that could reduce the effectiveness of perimeter fences built to standards outlined in ARM 12.6.1503A, including steepness of terrain, winter snow depths/drifts, susceptibility of fences to flood damage, etc.).

Fence integrity: The proposed fence would consist of 8-foot high, 6-inch mesh, high-tensile big game fencing; supported by 3-inch diameter steel pipe driven approximately 3.5 feet into the ground. Fence posts would be spaced 16 to 24 feet apart. The proposed enclosure site is located primarily on level bottomland with moderately sloped terrain at two locations of the fence line. Few trees exist in and around the proposed enclosure. The site as a whole should pose no major fencing problems.

The proposed enclosure site is located at an elevation of about 3,000 feet and the expected snow levels are normally around 2 feet or less. The proposed game farm area has only moderate potential for drifting during blizzards due to its bottomland location. Development of significant drifts will be dependent upon storm characteristics and topography. Under these extreme conditions of snow cover, the height of the fence above compacted snow level may be sufficiently reduced to permit ingress of wild ungulates into the enclosure to gain access of supplemental feed. However, only a few wild deer and no wild elk would be expected to use this area during periods of major winter storms. Domestic elk may also be able to leave the enclosure during periods of excessive snow cover, and removal of snow drifts from either side of the fence in drift prone areas may be necessary during winter.

Proportion (%) of the total habitat area currently used by wildlife that would be enclosed or otherwise impacted.

The game farm enclosure would exclude resident wild white-tailed deer only from only a minor portion (<1%) of the area they presently have access to. Habitat at the proposed game farm site has already been modified and similar agricultural habitat is widely available to deer in nearby areas. Enclosure of 38 acres of modified grassland will not seriously effect wild deer or other wildlife species in this area.

PART IV. EA CONCLUSION

1. Based on the significance criteria evaluated in this EA, is an EIS required? YES / NO

No. The appropriate level of analysis for the Proposed Action is a mitigated EA because:

- all impacts of the Proposed Action have been accurately identified in the EA; and
- all identified significant impacts would be mitigated to minor or none.

2. Describe the level of public involvement for this project if any and, given the complexity and the seriousness of the environmental issues associated with the Proposed Action, is the level of public involvement appropriate under the circumstances?

Upon completion of the Draft EA, a notice is sent to adjoining landowners, local newspapers, and other potentially affected interests, explaining the project and asking for input during a 21-day comment period. The Draft EA is also available to the public from the FWP office in Kalispell at the address and phone listed in the *Introduction* section of this EA, and through the State Bulletin Board System during the public comment period.

3. Duration of comment period if any: 21 days

4. Name, title, address and phone number of the Person(s) Responsible for Preparing the EA:

Dept. of Fish, Wildlife and Parks

Brian Sommers, FWP Region 1 Game Warden
490 N. Meridian
Kalispell, Montana 59901
(406) 751-4579

Tim Thier, Wildlife Biologist
Trego, Montana

Karen Zackheim, Game Farm Coordinator
Helena, Montana

Maxim Technologies, Inc.

Doug Rogness, Project Manager & Hydrologist
Alice Stanley, MEPA Specialist
Mike Cormier, Soil Scientist
Sally Staley, GIS and Graphics

FaunaWest Wildlife Consultants

Craig Knowles, Wildlife Biologist

Other

Candace Durran, Vegetation Specialist

APPENDIX A

FISH, WILDLIFE AND PARKS FENCING REQUIREMENTS

(c) third copy to purchaser or transferee, which must also accompany the animals to their destination; and

(d) fourth copy retained by the game farm operator at origin.

(3) The licensee must account for all bill of sale/transportation receipts.

(4) Transactions must be recorded in the record book(s) of the affected game farm licensee(s) within five days of the transaction. (History: Secs. 81-3-202, 87-4-422 MCA; IMP, Secs. 87-4-415, 81-3-210, 87-4-422 MCA; NEW, 1992 MAR p. 1017, Eff. 5/15/92.)

12.6.1503 FENCING REQUIREMENTS (IS HEREBY REPEALED)

(History: Sec. 87-4-422 MCA; IMP, Sec. 87-4-416 MCA; NEW, 1984 MAR p. 250, Eff. 1/27/84; REP, 1992 MAR p. 1017, Eff. 5/15/92.)

12.6.1503A FENCING REQUIREMENTS (1) After May 15, 1992, applicants for a game farm license must comply with the following fencing standards:

(a) Conventional perimeter fences must be, at a minimum, eight feet above ground level for their entire length. The bottom six feet must be mesh of sufficient size to prevent wild animals from entering and game farm animals from escaping. Supplemental wire required to attain a height of 8 feet may be smooth, barbed, or woven wire (at least 12 1/2 gauge) with strands spaced not more than six inches apart.

(b) Perimeter fences constructed of high tensile wire must be supported by a post or a stay at minimum intervals of 8 feet.

(c) Conventional perimeter fences must be at least 12 1/2 gauge woven wire, 14 1/2 gauge high-tensile woven wire, chain link, non-climbable woven fence, or other fence approved by the department of fish, wildlife, and parks.

(i) If the wire used is not a full 8 feet in height, it must be overlapped one row and securely fastened at every other vertical row or woven together with cable.

(d) Electric fencing materials may be used on perimeter fences only as a supplement to conventional fencing materials.

(e) All gates in the perimeter fence must be self-closing, equipped with two locking devices and installed in locations that have been approved by the department of fish, wildlife, and parks. Double gates may be required at points in the perimeter fence subject to frequent vehicle traffic that is not related to operation of the game farm.

(f) Posts used in the perimeter fence must be:

(i) of material of sufficient strength to keep game farm animals securely contained and wild animals from entering;

(ii) extended at least 8 feet above ground level;

(iii) spaced no more than 24 feet apart with stays or supports at 8 foot intervals between the posts;

(iv) braced with wood or with suitable metal material properly set in concrete, at all corners.

(2) Game farm perimeter fences in place as of May 15, 1992 that comply with the previously existing 7 1/2 foot height requirement and have been found to be adequate are not subject to the requirements of this rule (1)(a) through (f).

(a) If fences do not comply with the previously existing 7 1/2 foot height requirement or when reconstruction or replacement of existing 7 1/2 perimeter fences becomes necessary, they shall be constructed to meet the fencing standards outlined in (1).

(3) All open topped enclosures holding game farm carnivores must meet the following requirements:

(a) a perimeter fence at least 8 feet in height constructed of at least 9 gauge woven wire chain link or solid material that cannot be destroyed by the species contained therein;

(b) the perimeter barrier must be supported by a post or a stay at 10 foot intervals;

(c) an overhang of barbed wire or electric wire installed at the top of the perimeter fence or other configuration that precludes escape;

(d) buried mesh wire (minimum 11 gauge) extending laterally 3 feet to the inside of the enclosure for the length of the perimeter fence (to prevent carnivores from digging under the fence and escaping);

(e) any trees or obstacles that would allow carnivores to exit or enter the enclosure must be removed.

(4) All cages holding game farm carnivores must be of sufficient size (height, length and width) to prevent overcrowding and allow exercise and must meet the following requirements:

(a) a cage top constructed of at least 11 gauge woven wire or chain link;

(b) a floor made of cement or concrete at least 3 inches thick into which metal fence posts are permanently secured or a floor that consists of chain link or similar material that will preclude the animal digging through the floor to escape.

(5) Gates on carnivore enclosures and cages must be self-closing and have double locks.

(6) Gates are prohibited in fences that are shared in common by neighboring game farms.

(7) The fence must be maintained in a game-proof condition at all times to prevent animals from escaping from or entering the game farm premises. If game farm animals or wild animals do pass through, under, or over the fence for any reason, the licensee must supplement the fence to prevent continued passage. (History: Sec. 87-4-422 MCA; IMP, Secs. 87-4-409, 87-4-422 MCA; NEW, 1992 MAR p. 1017, Eff. 5/15/92.)

12.6.1504 REPORTING (IS HEREBY REPEALED) (History: Sec. 87-4-422 MCA; IMP, Sec. 87-4-416 MCA; NEW, 1984 MAR p. 250, Eff. 1/27/84; REP, 1992 MAR p. 1017, Eff. 5/15/92.)

12.6.1504A GAME FARM REPORTING (1) Reports must be recorded on the forms provided by the department of fish, wildlife, and parks and must be filled out completely and accurately.

(2) No pages in the game farm record book may be discarded. Voided pages must be sent to the department of fish, wildlife, and parks (Helena office).

(3) The annual game farm report must be submitted to the department of fish, wildlife, and parks (Helena office) by January 31.

(4) Renewal of a game farm license is contingent upon timely and accurate completion and submittal of required reports.

(5) Game farm record books and reports must be kept on the premises of the licensed game farm, residence of the game farm operator or manager or his/her principal place of business, so long as that location is within the state of Montana. The designated location of the game farm record books and reports must be declared to the department of fish, wildlife, and parks (Helena office).

(6) Purchases, sales, escapes, recaptures, deaths and births must be reported in the game farm record book provided by the department of fish, wildlife, and parks.

(7) Game farm operators are requested to notify the department of fish, wildlife, and parks (regional warden captain), in advance of his/her annual animal census. (History: Sec. 87-4-422 MCA; IMP, Secs. 87-4-417, 87-4-422 MCA; NEW, 1992 MAR p. 1017, Eff. 5/15/92.)

12.6.1505 RECOVERY OF ESCAPED ANIMALS (IS HEREBY REPEALED) (History: Sec. 87-4-422 MCA; IMP, Sec. 87-4-416 MCA; NEW, 1984 MAR p. 250, Eff. 1/27/84; REP, 1992 MAR p. 1017, Eff. 5/15/92.)

APPENDIX B

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

The 54th Legislature enacted the Private Property Assessment Act, Chapter 462, Laws of Montana (1995). The intent of the legislation is to establish an orderly and consistent process by which state agencies evaluate their proposed actions under the "Takings Clauses" of the United States and Montana Constitutions. The Takings Clause of the Fifth Amendment of the United States Constitution provides: "nor shall private property be taken for public use, without just compensation." Similarly, Article II, Section 29 of the Montana Constitution provides: "Private property shall not be taken or damaged for public use without just compensation..."

The Private Property Assessment Act applies to proposed agency actions pertaining to land or water management or to some other environmental matter that, if adopted and enforced without compensation, would constitute a deprivation of private property in violation of the United States or Montana Constitutions.

The Montana State Attorney General's Office has developed guidelines for use by state agency to assess the impact of a proposed agency action on private property. The assessment process includes a careful review of all issues identified in the Attorney General's guidance document (Montana Department of Justice 1997). If the use of the guidelines and checklist indicates that a proposed agency action has taking or damaging implications, the agency must prepare an impact assessment in accordance with Section 5 of the Private Property Assessment Act. For the purposes of this EA, the questions on this checklist refer to the following required stipulation(s):

Report the ingress of any wild game animals or egress of domestic elk to FWP within 24 hours. The report must contain the probable reason why or how ingress/egress was achieved.

PRIVATE PROPERTY ASSESSMENT ACT CHECKLIST

DOES THE PROPOSED AGENCY ACTION HAVE TAKINGS IMPLICATIONS UNDER THE PRIVATE PROPERTY ASSESSMENT ACT?

YES	NO	
_____	<u> X </u>	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
_____	<u> X </u>	2. Does the action result in either a permanent or indefinite physical occupation of private property?
_____	<u> X </u>	3. Does the action deprive the owner of all economically viable uses of the property?
_____	<u> X </u>	4. Does the action deny a fundamental attribute of ownership?
_____	<u> X </u>	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If the answer is NO , skip questions 5a and 5b and continue with question 6.]
_____	_____	5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
_____	_____	5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
_____	<u> X </u>	6. Does the action have a severe impact on the value of the property?
_____	<u> X </u>	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? [If the answer is NO , do not answer questions 7a-7c.]
_____	_____	7a. Is the impact of government action direct, peculiar, and significant?
_____	_____	7b. Has government action diminished property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?

Taking or damaging implications exist if **YES** is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, and 7c; or if **NO** is checked in response to questions 5a or 5b.

If taking or damaging implications exist, the agency must comply with § 5 of the Private Property Assessment Act, to include the preparation of a taking or damaging impact assessment. Normally, the preparation of an impact assessment will require consultation with agency legal staff.

